

SEQUENCE LISTING

<110> Nestle Skin Health S.A.
Christophe, Piketty

<120> TREATMENT OF SKIN LESIONS AND PRURITUS IN PRURIGO NODULAR
PATIENTS

<130> 105153-3004

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<151> 2019-02-22

<160> 6

<170> PatentIn version 3.5

<210> 1
<211> 662
<212> PRT
<213> Homo sapiens

<400> 1

Met Lys Leu Ser Pro Gln Pro Ser Cys Val Asn Leu Gly Met Met Trp
1 5 10 15

Thr Trp Ala Leu Trp Met Leu Pro Ser Leu Cys Lys Phe Ser Leu Ala
20 25 30

Ala Leu Pro Ala Lys Pro Glu Asn Ile Ser Cys Val Tyr Tyr Tyr Arg
35 40 45

Lys Asn Leu Thr Cys Thr Trp Ser Pro Gly Lys Glu Thr Ser Tyr Thr
50 55 60

Gln Tyr Thr Val Lys Arg Thr Tyr Ala Phe Gly Glu Lys His Asp Asn
65 70 75 80

Cys Thr Thr Asn Ser Ser Thr Ser Glu Asn Arg Ala Ser Cys Ser Phe
85 90 95

Phe Leu Pro Arg Ile Thr Ile Pro Asp Asn Tyr Thr Ile Glu Val Glu
100 105 110

Ala Glu Asn Gly Asp Gly Val Ile Lys Ser His Met Thr Tyr Trp Arg
115 120 125

Leu Glu Asn Ile Ala Lys Thr Glu Pro Pro Lys Ile Phe Arg Val Lys
130 135 140

Pro Val Leu Gly Ile Lys Arg Met Ile Gln Ile Glu Trp Ile Lys Pro
145 150 155 160

Glu Leu Ala Pro Val Ser Ser Asp Leu Lys Tyr Thr Leu Arg Phe Arg
165 170 175

Thr Val Asn Ser Thr Ser Trp Met Glu Val Asn Phe Ala Lys Asn Arg
180 185 190

Lys Asp Lys Asn Gln Thr Tyr Asn Leu Thr Gly Leu Gln Pro Phe Thr
195 200 205

Glu Tyr Val Ile Ala Leu Arg Cys Ala Val Lys Glu Ser Lys Phe Trp
210 215 220

Ser Asp Trp Ser Gln Glu Lys Met Gly Met Thr Glu Glu Glu Ala Pro
225 230 235 240

Cys Gly Leu Glu Leu Trp Arg Val Leu Lys Pro Ala Glu Ala Asp Gly
245 250 255

Arg Arg Pro Val Arg Leu Leu Trp Lys Lys Ala Arg Gly Ala Pro Val
260 265 270

Leu Glu Lys Thr Leu Gly Tyr Asn Ile Trp Tyr Tyr Pro Glu Ser Asn
275 280 285

Thr Asn Leu Thr Glu Thr Met Asn Thr Thr Asn Gln Gln Leu Glu Leu
290 295 300

His Leu Gly Gly Glu Ser Phe Trp Val Ser Met Ile Ser Tyr Asn Ser
305 310 315 320

Leu Gly Lys Ser Pro Val Ala Thr Leu Arg Ile Pro Ala Ile Gln Glu

325

330

335

Lys Ser Phe Gln Cys Ile Glu Val Met Gln Ala Cys Val Ala Glu Asp
 340 345 350

Gln Leu Val Val Lys Trp Gln Ser Ser Ala Leu Asp Val Asn Thr Trp
 355 360 365

Met Ile Glu Trp Phe Pro Asp Val Asp Ser Glu Pro Thr Thr Leu Ser
 370 375 380

Trp Glu Ser Val Ser Gln Ala Thr Asn Trp Thr Ile Gln Gln Asp Lys
 385 390 395 400

Leu Lys Pro Phe Trp Cys Tyr Asn Ile Ser Val Tyr Pro Met Leu His
 405 410 415

Asp Lys Val Gly Glu Pro Tyr Ser Ile Gln Ala Tyr Ala Lys Glu Gly
 420 425 430

Val Pro Ser Glu Gly Pro Glu Thr Lys Val Glu Asn Ile Gly Val Lys
 435 440 445

Thr Val Thr Ile Thr Trp Lys Glu Ile Pro Lys Ser Glu Arg Lys Gly
 450 455 460

Ile Ile Cys Asn Tyr Thr Ile Phe Tyr Gln Ala Glu Gly Gly Lys Gly
 465 470 475 480

Phe Ser Lys Thr Val Asn Ser Ser Ile Leu Gln Tyr Gly Leu Glu Ser
 485 490 495

Leu Lys Arg Lys Thr Ser Tyr Ile Val Gln Val Met Ala Ser Thr Ser
 500 505 510

Ala Gly Gly Thr Asn Gly Thr Ser Ile Asn Phe Lys Thr Leu Ser Phe
 515 520 525

Ser Val Phe Glu Ile Ile Leu Ile Thr Ser Leu Ile Gly Gly Gly Leu
 530 535 540

Leu Ile Leu Ile Ile Leu Thr Val Ala Tyr Gly Leu Lys Lys Pro Asn
545 550 555 560

Lys Leu Thr His Leu Cys Trp Pro Thr Val Pro Asn Pro Ala Glu Ser
565 570 575

Ser Ile Ala Thr Trp His Gly Asp Asp Phe Lys Asp Lys Leu Asn Leu
580 585 590

Lys Glu Ser Asp Asp Ser Val Asn Thr Glu Asp Arg Ile Leu Lys Pro
595 600 605

Cys Ser Thr Pro Ser Asp Lys Leu Val Ile Asp Lys Leu Val Val Asn
610 615 620

Phe Gly Asn Val Leu Gln Glu Ile Phe Thr Asp Glu Ala Arg Thr Gly
625 630 635 640

Gln Glu Asn Asn Leu Gly Gly Glu Lys Asn Gly Thr Arg Ile Leu Ser
645 650 655

Ser Cys Pro Thr Ser Ile
660

<210> 2
<211> 732
<212> PRT
<213> Homo sapiens

<400> 2

Met Met Trp Thr Trp Ala Leu Trp Met Leu Pro Ser Leu Cys Lys Phe
1 5 10 15

Ser Leu Ala Ala Leu Pro Ala Lys Pro Glu Asn Ile Ser Cys Val Tyr
20 25 30

Tyr Tyr Arg Lys Asn Leu Thr Cys Thr Trp Ser Pro Gly Lys Glu Thr
35 40 45

Ser Tyr Thr Gln Tyr Thr Val Lys Arg Thr Tyr Ala Phe Gly Glu Lys
50 55 60

His Asp Asn Cys Thr Thr Asn Ser Ser Thr Ser Glu Asn Arg Ala Ser
65 70 75 80

Cys Ser Phe Phe Leu Pro Arg Ile Thr Ile Pro Asp Asn Tyr Thr Ile
85 90 95

Glu Val Glu Ala Glu Asn Gly Asp Gly Val Ile Lys Ser His Met Thr
100 105 110

Tyr Trp Arg Leu Glu Asn Ile Ala Lys Thr Glu Pro Pro Lys Ile Phe
115 120 125

Arg Val Lys Pro Val Leu Gly Ile Lys Arg Met Ile Gln Ile Glu Trp
130 135 140

Ile Lys Pro Glu Leu Ala Pro Val Ser Ser Asp Leu Lys Tyr Thr Leu
145 150 155 160

Arg Phe Arg Thr Val Asn Ser Thr Ser Trp Met Glu Val Asn Phe Ala
165 170 175

Lys Asn Arg Lys Asp Lys Asn Gln Thr Tyr Asn Leu Thr Gly Leu Gln
180 185 190

Pro Phe Thr Glu Tyr Val Ile Ala Leu Arg Cys Ala Val Lys Glu Ser
195 200 205

Lys Phe Trp Ser Asp Trp Ser Gln Glu Lys Met Gly Met Thr Glu Glu
210 215 220

Glu Ala Pro Cys Gly Leu Glu Leu Trp Arg Val Leu Lys Pro Ala Glu
225 230 235 240

Ala Asp Gly Arg Arg Pro Val Arg Leu Leu Trp Lys Lys Ala Arg Gly
245 250 255

Ala Pro Val Leu Glu Lys Thr Leu Gly Tyr Asn Ile Trp Tyr Tyr Pro
260 265 270

Glu Ser Asn Thr Asn Leu Thr Glu Thr Met Asn Thr Thr Asn Gln Gln
275 280 285

Leu Glu Leu His Leu Gly Gly Glu Ser Phe Trp Val Ser Met Ile Ser
290 295 300

Tyr Asn Ser Leu Gly Lys Ser Pro Val Ala Thr Leu Arg Ile Pro Ala
305 310 315 320

Ile Gln Glu Lys Ser Phe Gln Cys Ile Glu Val Met Gln Ala Cys Val
325 330 335

Ala Glu Asp Gln Leu Val Val Lys Trp Gln Ser Ser Ala Leu Asp Val
340 345 350

Asn Thr Trp Met Ile Glu Trp Phe Pro Asp Val Asp Ser Glu Pro Thr
355 360 365

Thr Leu Ser Trp Glu Ser Val Ser Gln Ala Thr Asn Trp Thr Ile Gln
370 375 380

Gln Asp Lys Leu Lys Pro Phe Trp Cys Tyr Asn Ile Ser Val Tyr Pro
385 390 395 400

Met Leu His Asp Lys Val Gly Glu Pro Tyr Ser Ile Gln Ala Tyr Ala
405 410 415

Lys Glu Gly Val Pro Ser Glu Gly Pro Glu Thr Lys Val Glu Asn Ile
420 425 430

Gly Val Lys Thr Val Thr Ile Thr Trp Lys Glu Ile Pro Lys Ser Glu
435 440 445

Arg Lys Gly Ile Ile Cys Asn Tyr Thr Ile Phe Tyr Gln Ala Glu Gly
450 455 460

Gly Lys Gly Phe Ser Lys Thr Val Asn Ser Ser Ile Leu Gln Tyr Gly
465 470 475 480

Leu Glu Ser Leu Lys Arg Lys Thr Ser Tyr Ile Val Gln Val Met Ala
485 490 495

Ser Thr Ser Ala Gly Gly Thr Asn Gly Thr Ser Ile Asn Phe Lys Thr
500 505 510

Leu Ser Phe Ser Val Phe Glu Ile Ile Leu Ile Thr Ser Leu Ile Gly
515 520 525

Gly Gly Leu Leu Ile Leu Ile Ile Leu Thr Val Ala Tyr Gly Leu Lys
530 535 540

Lys Pro Asn Lys Leu Thr His Leu Cys Trp Pro Thr Val Pro Asn Pro
545 550 555 560

Ala Glu Ser Ser Ile Ala Thr Trp His Gly Asp Asp Phe Lys Asp Lys
565 570 575

Leu Asn Leu Lys Glu Ser Asp Asp Ser Val Asn Thr Glu Asp Arg Ile
580 585 590

Leu Lys Pro Cys Ser Thr Pro Ser Asp Lys Leu Val Ile Asp Lys Leu
595 600 605

Val Val Asn Phe Gly Asn Val Leu Gln Glu Ile Phe Thr Asp Glu Ala
610 615 620

Arg Thr Gly Gln Glu Asn Asn Leu Gly Gly Glu Lys Asn Gly Tyr Val
625 630 635 640

Thr Cys Pro Phe Arg Pro Asp Cys Pro Leu Gly Lys Ser Phe Glu Glu
645 650 655

Leu Pro Val Ser Pro Glu Ile Pro Pro Arg Lys Ser Gln Tyr Leu Arg
660 665 670

Ser Arg Met Pro Glu Gly Thr Arg Pro Glu Ala Lys Glu Gln Leu Leu
675 680 685

Phe Ser Gly Gln Ser Leu Val Pro Asp His Leu Cys Glu Glu Gly Ala
690 695 700

Pro Asn Pro Tyr Leu Lys Asn Ser Val Thr Ala Arg Glu Phe Leu Val
705 710 715 720

Ser Glu Lys Leu Pro Glu His Thr Lys Gly Glu Val
725 730

<210> 3
<211> 716
<212> PRT
<213> Mus musculus

<400> 3

Met Trp Thr Leu Ala Leu Trp Ala Phe Ser Phe Leu Cys Lys Phe Ser
1 5 10 15

Leu Ala Val Leu Pro Thr Lys Pro Glu Asn Ile Ser Cys Val Phe Tyr
20 25 30

Phe Asp Arg Asn Leu Thr Cys Thr Trp Arg Pro Glu Lys Glu Thr Asn
35 40 45

Asp Thr Ser Tyr Ile Val Thr Leu Thr Tyr Ser Tyr Gly Lys Ser Asn
50 55 60

Tyr Ser Asp Asn Ala Thr Glu Ala Ser Tyr Ser Phe Pro Arg Ser Cys
65 70 75 80

Ala Met Pro Pro Asp Ile Cys Ser Val Glu Val Gln Ala Gln Asn Gly
85 90 95

Asp Gly Lys Val Lys Ser Asp Ile Thr Tyr Trp His Leu Ile Ser Ile
100 105 110

Ala Lys Thr Glu Pro Pro Ile Ile Leu Ser Val Asn Pro Ile Cys Asn
115 120 125

Arg Met Phe Gln Ile Gln Trp Lys Pro Arg Glu Lys Thr Arg Gly Phe
130 135 140

Pro Leu Val Cys Met Leu Arg Phe Arg Thr Val Asn Ser Ser Arg Trp
145 150 155 160

Thr Glu Val Asn Phe Glu Asn Cys Lys Gln Val Cys Asn Leu Thr Gly
165 170 175

Leu Gln Ala Phe Thr Glu Tyr Val Leu Ala Leu Arg Phe Arg Phe Asn
180 185 190

Asp Ser Arg Tyr Trp Ser Lys Trp Ser Lys Glu Glu Thr Arg Val Thr
195 200 205

Met Glu Glu Val Pro His Val Leu Asp Leu Trp Arg Ile Leu Glu Pro
210 215 220

Ala Asp Met Asn Gly Asp Arg Lys Val Arg Leu Leu Trp Lys Lys Ala
225 230 235 240

Arg Gly Ala Pro Val Leu Glu Lys Thr Phe Gly Tyr His Ile Gln Tyr
245 250 255

Phe Ala Glu Asn Ser Thr Asn Leu Thr Glu Ile Asn Asn Ile Thr Thr
260 265 270

Gln Gln Tyr Glu Leu Leu Leu Met Ser Gln Ala His Ser Val Ser Val
275 280 285

Thr Ser Phe Asn Ser Leu Gly Lys Ser Gln Glu Ala Ile Leu Arg Ile
290 295 300

Pro Asp Val His Glu Lys Thr Phe Gln Tyr Ile Lys Ser Met Lys Ala
305 310 315 320

Tyr Ile Ala Glu Pro Leu Leu Val Val Asn Trp Gln Ser Ser Ile Pro
325 330 335

Ala Val Asp Thr Trp Ile Val Glu Trp Leu Pro Glu Ala Ala Met Ser
340 345 350

Lys Phe Pro Ala Leu Ser Trp Glu Ser Val Ser Gln Val Thr Asn Trp
355 360 365

Thr Ile Glu Gln Asp Lys Leu Lys Pro Phe Thr Cys Tyr Asn Ile Ser

370

375

380

Val Tyr Pro Val Leu Gly His Arg Val Gly Glu Pro Tyr Ser Ile Gln
 385 390 395 400

Ala Tyr Ala Lys Glu Gly Thr Pro Leu Lys Gly Pro Glu Thr Arg Val
 405 410 415

Glu Asn Ile Gly Leu Arg Thr Ala Thr Ile Thr Trp Lys Glu Ile Pro
 420 425 430

Lys Ser Ala Arg Asn Gly Phe Ile Asn Asn Tyr Thr Val Phe Tyr Gln
 435 440 445

Ala Glu Gly Gly Lys Glu Leu Ser Lys Thr Val Asn Ser His Ala Leu
 450 455 460

Gln Cys Asp Leu Glu Ser Leu Thr Arg Arg Thr Ser Tyr Thr Val Trp
 465 470 475 480

Val Met Ala Ser Thr Arg Ala Gly Gly Thr Asn Gly Val Arg Ile Asn
 485 490 495

Phe Lys Thr Leu Ser Ile Ser Val Phe Glu Ile Val Leu Leu Thr Ser
 500 505 510

Leu Val Gly Gly Gly Leu Leu Leu Leu Ser Ile Lys Thr Val Thr Phe
 515 520 525

Gly Leu Arg Lys Pro Asn Arg Leu Thr Pro Leu Cys Cys Pro Asp Val
 530 535 540

Pro Asn Pro Ala Glu Ser Ser Leu Ala Thr Trp Leu Gly Asp Gly Phe
 545 550 555 560

Lys Lys Ser Asn Met Lys Glu Thr Gly Asn Ser Gly Asp Thr Glu Asp
 565 570 575

Val Val Leu Lys Pro Cys Pro Val Pro Ala Asp Leu Ile Asp Lys Leu
 580 585 590

Val Val Asn Phe Glu Asn Phe Leu Glu Val Val Leu Thr Glu Glu Ala
595 600 605

Gly Lys Gly Gln Ala Ser Ile Leu Gly Gly Glu Ala Asn Glu Tyr Val
610 615 620

Thr Ser Pro Ser Arg Pro Asp Gly Pro Pro Gly Lys Ser Phe Lys Glu
625 630 635 640

Pro Ser Val Leu Thr Glu Val Ala Ser Glu Asp Ser His Ser Thr Cys
645 650 655

Ser Arg Met Ala Asp Glu Ala Tyr Ser Glu Leu Ala Arg Gln Pro Ser
660 665 670

Ser Ser Cys Gln Ser Pro Gly Leu Ser Pro Pro Arg Glu Asp Gln Ala
675 680 685

Gln Asn Pro Tyr Leu Lys Asn Ser Val Thr Thr Arg Glu Phe Leu Val
690 695 700

His Glu Asn Ile Pro Glu His Ser Lys Gly Glu Val
705 710 715

<210> 4
<211> 735
<212> PRT
<213> Macaca fascicularis

<400> 4

Met Met Trp Thr Trp Ala Leu Trp Met Phe Pro Leu Leu Cys Lys Phe
1 5 10 15

Gly Leu Ala Ala Leu Pro Ala Lys Pro Glu Asn Ile Ser Cys Val Tyr
20 25 30

Tyr Tyr Arg Lys Asn Leu Thr Cys Thr Trp Ser Pro Gly Lys Glu Thr
35 40 45

Ser Tyr Thr Gln Tyr Thr Ala Lys Arg Thr Tyr Ala Phe Gly Lys Lys
50 55 60

His Asp Asn Cys Thr Thr Ser Ser Ser Thr Ser Glu Asn Arg Ala Ser
65 70 75 80

Cys Ser Phe Phe Leu Pro Arg Ile Thr Ile Pro Asp Asn Tyr Thr Ile
85 90 95

Glu Val Glu Ala Glu Asn Gly Asp Gly Val Ile Lys Ser Asp Met Thr
100 105 110

Cys Trp Arg Leu Glu Asp Ile Ala Lys Thr Glu Pro Pro Glu Ile Phe
115 120 125

Ser Val Lys Pro Val Leu Gly Ile Lys Arg Met Ile Arg Ile Glu Trp
130 135 140

Ile Lys Pro Glu Leu Ala Pro Val Ser Ser Asp Leu Lys Tyr Ala Leu
145 150 155 160

Arg Phe Arg Thr Val Asn Ser Thr Ser Trp Met Glu Val Asn Phe Ala
165 170 175

Lys Asn Arg Lys Asp Thr Asn Gln Thr Tyr Asn Leu Met Gly Leu Gln
180 185 190

Ala Phe Thr Glu Tyr Val Val Ala Leu Arg Cys Ala Val Lys Glu Ser
195 200 205

Lys Phe Trp Ser Asp Trp Ser Gln Glu Lys Met Gly Met Thr Glu Glu
210 215 220

Glu Ala Pro Cys Gly Leu Glu Leu Trp Arg Val Leu Lys Pro Thr Glu
225 230 235 240

Val Asp Gly Arg Arg Pro Val Arg Leu Leu Trp Lys Lys Ala Arg Gly
245 250 255

Ala Pro Val Leu Glu Lys Thr Leu Gly Tyr Asn Ile Trp Tyr Phe Pro
260 265 270

Glu Asn Asn Thr Asn Leu Thr Glu Thr Val Asn Thr Thr Asn Gln Gln
275 280 285

Leu Glu Leu His Leu Gly Gly Glu Ser Tyr Trp Val Ser Met Ile Ser
290 295 300

Tyr Asn Ser Leu Gly Lys Ser Pro Val Thr Thr Leu Arg Ile Pro Ala
305 310 315 320

Ile Gln Glu Lys Ser Phe Arg Cys Ile Glu Val Met Gln Ala Cys Leu
325 330 335

Ala Glu Asp Gln Leu Val Val Lys Trp Gln Ser Ser Ala Leu Asp Val
340 345 350

Asn Thr Trp Met Ile Glu Trp Phe Pro Asp Met Asp Ser Glu His Pro
355 360 365

Thr Leu Ser Trp Glu Ser Val Ser Gln Ala Thr Asn Trp Thr Ile Gln
370 375 380

Gln Asp Lys Leu Lys Pro Phe Trp Cys Tyr Asn Ile Ser Val Tyr Pro
385 390 395 400

Met Leu His Asp Lys Val Gly Glu Pro Tyr Ser Ile Gln Ala Tyr Ala
405 410 415

Lys Glu Gly Ile Pro Ser Lys Gly Pro Glu Thr Lys Val Glu Asn Ile
420 425 430

Gly Val Lys Thr Val Thr Ile Thr Trp Lys Glu Ile Pro Lys Ser Glu
435 440 445

Arg Lys Gly Ile Ile Cys Asn Tyr Thr Ile Phe Tyr Gln Ala Glu Gly
450 455 460

Gly Lys Gly Phe Ser Lys Thr Val Asn Ser Ser Ile Leu Gln Tyr Gly
465 470 475 480

Leu Glu Ser Leu Lys Arg Lys Thr Ser Tyr Thr Val Arg Val Met Ala
485 490 495

Ser Thr Ser Ala Gly Gly Ile Asn Gly Thr Ser Ile Asn Phe Lys Thr
500 505 510

Leu Ser Phe Ser Val Phe Glu Ile Ile Leu Ile Thr Ser Leu Ile Gly
515 520 525

Gly Gly Leu Leu Ile Leu Ile Ile Leu Thr Val Ala Tyr Gly Leu Lys
530 535 540

Lys Pro Asn Lys Leu Thr His Leu Cys Trp Pro Ser Val Pro Asn Pro
545 550 555 560

Ala Glu Ser Ser Ile Ala Thr Trp Arg Gly Asp Asp Phe Lys Asp Lys
565 570 575

Leu Asn Leu Lys Glu Ser Asp Asp Ser Val Asn Thr Glu Asp Arg Ile
580 585 590

Leu Lys Pro Cys Ser Thr Pro Ser Asp Lys Leu Val Ile Asp Lys Ser
595 600 605

Val Val Asn Phe Gly Asn Val Leu Gln Glu Met Phe Thr Asp Glu Ala
610 615 620

Arg Thr Gly Gln Glu Asn Asn Leu Gly Gly Glu Lys Asn Glu Tyr Val
625 630 635 640

Thr His Pro Phe Arg Ala Asp Cys Pro Leu Gly Lys Ser Phe Glu Glu
645 650 655

Leu Pro Val Ser Pro Glu Ile Pro Pro Arg Lys Ser Gln Tyr Leu Arg
660 665 670

Ser Arg Met Pro Glu Gly Thr Cys Leu Glu Ala Glu Glu Gln Leu Leu
675 680 685

Val Ser Gly Gln Ser Leu Glu Ser Leu Ala Pro Asp His Val Arg Glu
690 695 700

Ala Ala Ala Pro Asn Pro Tyr Leu Lys Asn Ser Val Thr Thr Arg Glu
705 710 715 720

Phe Leu Val Ser Gln Lys Leu Pro Glu His Thr Lys Gly Glu Val
725 730 735

<210> 5

<211> 445

<212> PRT

<213> Artificial Sequence

<220>

<223> Nemolizumab heavy chain amino acid sequence

<400> 5

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Ile Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Leu Ile Asn Pro Tyr Asn Gly Gly Thr Asp Tyr Asn Pro Gln Phe
50 55 60

Gln Asp Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Tyr Asp Asp Gly Pro Tyr Thr Leu Glu Thr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190

Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His
195 200 205

Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Ser Cys
210 215 220

Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val
225 230 235 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
245 250 255

Pro Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu
260 265 270

Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
275 280 285

Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser
290 295 300

Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
305 310 315 320

Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile
325 330 335

Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
340 345 350

Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
355 360 365

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
370 375 380

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser
385 390 395 400

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
405 410 415

Trp Gln Glu Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
420 425 430

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

<210> 6
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<223> Nemolizumab light chain amino acid sequence

<400> 6

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
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Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Glu Asp Ile Tyr Ser Phe
20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asn Ala Gln Thr Glu Ala Gln Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln His His Tyr Asp Ser Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210